

J.H.MILLHOLLIN MEMORIAL BRIDGE
(Jacksonville Ferry Bridge)
(GDOT Bridge #069/00031/2864.N)
U.S.319/S.R.31 spanning Ocmulgee River
at Blackshear Road
Jacksonville Vicinity
Coffee County
Georgia

HAER NO.GA-57

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PHOTOGRAPHS
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
NATIONAL PARK SERVICE
Department of the Interior
Southeast Region
Atlanta, Georgia 30303

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HAER No. GA-57

Location: Spanning the Ocmulgee River at Blackshear Road
(U.S. 319/S.R. 31), approximately one mile south
of Jacksonville, Coffee County, Georgia

UTMs: A) North end of bridge
Easting Northing
312510 3519060

B) South end of bridge
Easting Northing
312960 3517910

Quad: Jacksonville, Georgia

Date(s) of Construction: 1935

Present Owner: Georgia Department of Transportation
No. 2 Capitol Square
Atlanta, Georgia 30334-1002

Present Use: Vehicular Bridge

Significance: The J. H. Millhollin Bridge is one of only four
remaining swing span bridges recorded in
Georgia. The bridge, composed of a Camelback
through truss and a Warren through truss swing
span, is the only swing span bridge in Georgia
that is composed of two through trusses. It was
fabricated and erected by the Vincennes Bridge
Company of Vincennes, Indiana, which has been in
operation since its establishment in 1899.

Historian: Jayne H. Maxwell, May 1985

Edited and Transmitted by: Paul Hawke
Southeast Region
National Park Service
Atlanta, Georgia 30303

The J. H. Millhollin Bridge is a center-bearing swing span bridge, built in 1935-1936 as a part of a larger project known as State Aid Project (S.A.P.) 1522B and S.A.P. 1522B-PLI. It was built over the Ocmulgee River to replace the Jacksonville Ferry.

A swing span bridge is composed of a superstructure arranged to turn about a vertical axis of a pivot anchored to a center pier (Hovey, p. 36). There are three types of swing span bridges: the center bearing, in which the entire weight of the open span is supported by a center pivot; the rim bearing, in which the weight is carried by a cylindrical drum supported by rollers when the span is open; and a combination of the center and rim bearing swing span bridges (Hovey, p. 17).

It is difficult to establish a date for the construction of the first swing span bridge. However, it is known that they were preceded by bascule bridges in terms of the evolution of movable bridges and were themselves followed in the process by lift span bridges (Waddell, p. 663-664). The earliest swing span bridges were wooden and of the center bearing type. The earliest records of iron swing span bridges in the United States indicate they were of the rim bearing type. However, use of the center bearing type gradually increased until it nearly superseded the rim bearing type except for very wide urban highway bridges. This was due in part to the strong advocacy of the center bearing swing span as the superior design by C. C. Schneider. Schneider was Engineer of the Pencoyd Iron Works from 1887 to 1900. Subsequently, he was Consulting Engineer of the American Bridge Company. It was during this time that his strong advocacy of this bridge type influenced many engineers and firmly established the center bearing design in American practice (Hovey, p. 36-37).

The purpose of the swing span bridge, or of any movable bridge which accommodates highway or railway traffic, is to clear passage for ships or boats in navigable waters (Hovey, p. 1). Swing span bridges were the simplest and most economical to build in terms of cost and maintenance, given that site conditions were favorable and there were no restricting circumstances (Hovey, p. 20). Swing span trusses were almost always of the through truss type, primarily because the deck was usually kept as close as safety allowed to the high water elevation and, secondly, because utilizing a through truss instead of a deck truss for the swing span allowed for the passage of small craft without opening the span (Waddell, 688-689).

When open, the superstructure of a swing span bridge requires protection from collision damage. Protection of the swing span is provided by a fender system. A fender system is constructed to align with the swing span in open position. It is constructed of pile and timber and functions to turn aside any vessel which is carelessly navigated (Hovey, p. 21).

It is apparent that, in the case of heavily navigated waters, an operator's house would be necessary to facility the frequent opening and closing of the

span. Usually, the operator's house would be placed above the roadway at the center of the span (Hovey, p. 20). However, in the case of the J. H. Millhollin Bridge, an operator's house was not necessary due to infrequent water traffic. In this case, the swing span was opened by means of two capstans embedded in the roadway of the bridge. Three or four men were required to open the swing span. This was accomplished by first turning the capstan which pull back wedges that locked the span in place. Once the wedges were unlocked, the second capstan would be turned, which allowed the span to swing open. This capstan was positioned on the end of a shaft which meshed with the turntable gear that turned the span (Smith, 1984).

Since there was no operator permanently stationed at the bridge, notification to open the span had to be obtained in advance. The Corps of Engineers required at least one week advanced notification from anyone wishing to navigate to vessel through the area. They, in turn, would contact the proper Georgia Department of Transportation office in the area and a crew would be stationed at the bridge at an estimated time of arrival.

Several swing span bridges were built by the Department over the Ocmulgee River. Their spans were rarely opened due to infrequent river traffic and primarily owe their existence to government regulations. Virtually, the only time the spans would be opened would be to permit the passage of the government "snagboat" on periodical trips up and down the river. For this reason, it was considered by the Department to be an inefficient expenditure of funds to provide power machinery for opening the spans (Race, 1935).

As stated earlier, the J. H. Millhollin Bridge was built in 1935-36 as part of a larger project known as S.A.P. 1522B and S.A.P. 1522B-PLI. This project extended from McRae, Georgia, to Douglas, Georgia, in Coffee County. Existing State Route 31 was upgraded and aligned at that time. State Route 31 was formerly the Blackshear Road, which was built about 1812 to 1815. The road, which extended from Jacksonville in Telfair County to Camp Pickney on the St. Mary's River in Charlton County, was opened by State troops commanded by General David Blackshear (Ward, p. 85).

Prior to the construction of the existing bridge, traffic was ferried across. The ferry, known as the Jacksonville Ferry, was located to the northeast of the existing bridge. The old landing site is evident today.

Jacksonville was the first county seat of Telfair County and remained so from 1807 to 1870, at which time McRae became the county seat. It was also an important point on the Blackshear Road. Jacksonville was the center of a large and wealthy plantation economy and was a landing for freight and passenger traffic on the river before and, for some years, after the Civil War (Scruggs, p. 450).

The existing bridge was built to replace the Jacksonville Ferry. Plans for the bridge were prepared by Clarence N. Crocker, Bridge Engineer in the State Highway Department. Designs for the Camelback through truss and the Warren through truss swing span were obtained by utilizing the State Highway Bridge Department standard designs for such trusses. In the case of the 180-foot Camelback span, Standard #3736-A was utilized, and for the 240-foot Warren swing span, Standard #3738-A was utilized. It was common practice to standardize and reuse designs for bridges previously built. Therefore, the same design might be utilized on a number of subsequent bridges that required the same type span (Smith, 1984).

After plans were prepared and approved, two contracts were let to construct the bridge. The first contract appears to have dealt mainly with construction materials and clearing and grubbing of the site. The second contract let was for the two main through truss sections. This contract was let to the Vincennes Bridge Company of Vincennes, Indiana, now the Vincennes Steel Corporation. The contract called for the complete manufacture and erection in place of a 180-foot fixed steel truss and a 240-foot steel truss swing span (except floor), including machinery. The machinery for the swing span was manufactured by the James Saunders Company of Dayton, Ohio, for the Vincennes Bridge Company (Georgia Department of Transportation records). No information has been found regarding the James Saunders Company.

The Vincennes Bridge Company was established by Frank Oliphant in Vincennes, Indiana, in 1899. Although the company produced other products, it specialized in the manufacture of bridges. The present corporation, which is no longer owned by the Oliphant family, still specializes in the manufacture of girder and truss bridges (Vincennes Steel Corporation, 1984).

Construction of this bridge required approval from the United States War Department and a permit from the Secretary of War (Georgia Department of Transportation records). The War Department required the construction of the swing span truss. This was due to the fact that in 1934 the head of navigation of the Ocmulgee River had been defined by the government to begin at the Spring Street Bridge in Macon, Georgia (Peavey, 1984). It was required that any bridge built south of this point contain a movable span (Race, 1935).

The Georgia Department of Transportation no longer constructs swing span bridges. Dr. James Brittain of the Georgia Institute of Technology has stated that the utilization of the swing span is probably obsolete in the construction of movable span bridges. Swing spans were replaced by the use of a lift span and bascule bridges which offered a superior design. Even when open, the swing span bridge was an obstruction in and of itself. This fact is evidenced by the necessity of a protective fender system. Dr. Brittain approximated the discontinuation of the swing span design for movable bridges to be just after World War II.

The J. H. Millhollin Bridge bears bridge plates which designate it as the Jacksonville Ferry Bridge and the J. H. Millhollin Memorial Bridge. Its designation as the Jacksonville Ferry Bridge can be assumed to be due to its location near the old ferry site. Its designation as the J. H. Millhollin Memorial Bridge appears to have been politically motivated. The bridge was built under the governorship of Eugene Talmadge. Millhollin was a political ally of Governor Talmadge. In addition, he was a local landowner from Coffee County and served two terms as state senator (1935-37, 1941-43). Millhollin died in 1949.

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